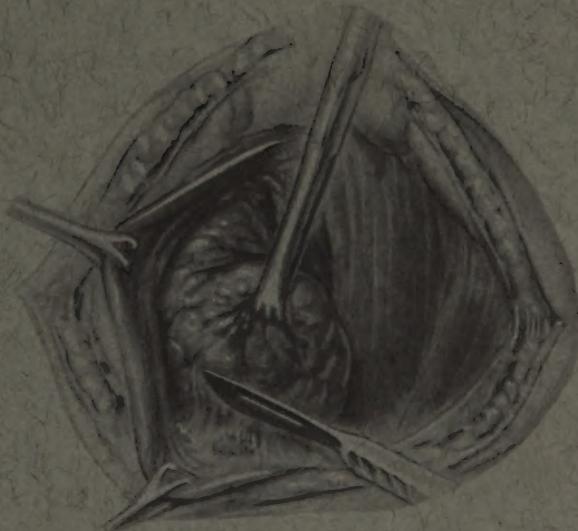
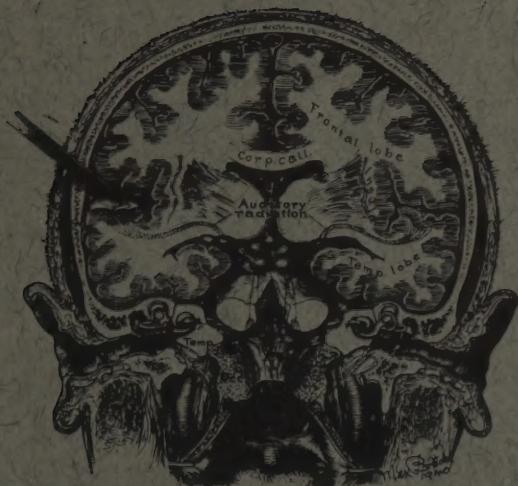


MEDICAL ILLUSTRATION

AN EXHIBIT OF ART AS APPLIED TO MEDICINE



NATIONAL LIBRARY OF MEDICINE
SEPT. 15 - DEC. 19, 1969

Cover: Top left — Sagittal section of brain and auditory apparatus
by Max Brödel.

Lower right — Thyroidectomy: traction on the lower pole, by
Tom Jones.



This exhibit features the work of two the world's outstanding medical illustrators, Max Brödel and Tom Jones, as well as drawings of some of their students. Working at the Schools of Medicine of the Johns Hopkins University and the University of Illinois, respectively, Brödel and Jones founded and directed the two most notable schools of medical illustration in this country. While of differing temperament and background, and employing individual illustration techniques, each man was a master of his profession, with high standards of performance that his students were inspired to emulate.

Brödel was a research scientist as well as an artist. In addition to his art, Jones expounded a broad concept of medical communication through visual media. The work of both men, as well as that of their students, has been featured in important medical texts and journals. Each contributed importantly to medical research and education through the excellence, clarity, and volume of his illustrations. The medical world is greatly indebted to them for demonstrating so effectively the communication of scientific information through art.

The National Library of Medicine acknowledges with deep appreciation the loan of medical illustrations by many organizations and individuals in assisting to organize this exhibit. Particular recognition is due Mr. Biagio Melloni, Department of Medical and Dental Communications, Georgetown University, Mrs. Ranice Crosby, Department of Art as Applied to Medicine, Johns Hopkins University; The Archive of Medical Visual Resources of the Harvard Medical Library, and the Armed Forces Medical Museum.

MEDICAL ILLUSTRATION

ANATOMIC RELATION OF STRUCTURES IN SUBLABIAL
TRANSSPHENOIDAL APPROACH TO THE PITUITARY GLAND
by Max Brödel

1

SAGITTAL SECTION OF BRAIN AND AUDITORY APPARATUS by
Max Brödel

2

BLADDER AND KIDNEY STONES by Max Brödel.

3

EARLY PREGNANCY IN A FALLOPIAN TUBE by Max Brödel.

4

A CASE OF FOOT AND MOUTH DISEASE IN MAN by Max Brödel.

5

SQUAMUS CELL CANCER OF THE CERVIX by Max Brödel.

6

OBTAINING BLOOD FROM DONOR by Max Brödel.

7

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- 8** DIRECT BLOOD STREAM INFECTION THROUGH THE TONSILS by Max Brödel.
-
- 9** DISEASES OF THE BILIARY TRACT by Tom Jones.
-
- 10** SAGITTAL SECTION OF THE HUMAN BODY by Tom Jones.
-
- 11** RENAL CALCULI by Tom Jones.
-
- 12** THE ANATOMY OF THE LARGE INTESTINE by Tom Jones.
-
- 13** THYROIDECTOMY: ENDERMIC INFILTRATION OF A LINE A FINGERBREADTH ABOVE THE CLAVICLES. RADIATING LINES SHOW DIRECTION OF INJECTIONS TO BLOCK THE CERVICAL NERVES by Tom Jones.
-
- 14** THYROIDECTOMY: THE NEEDLE IS BEING PASSED BETWEEN THE TRACHEA AND THE UPPER POLE OF THE THYROID GLAND by Tom Jones.
-
- 15** THYROIDECTOMY: TRACTION OF THE LOWER POLE EXPOSES THE VEINS COVERED BY A THIN FASCIA. THE PARATHYROID IS SHOWN BELOW. by Tom Jones.
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- 16** THYROIDECTOMY: THE INFERIOR THYROID VEINS ARE EXPOSED ABOVE THE PARATHYROID. INSERT: THE VEINS BEING GRASPED WITHOUT INCLUDING ANY OTHER TISSUE. by Tom Jones.
-
- 17** THYROIDECTOMY: THE RIGHT POLE IS ELEVATED ON A SMALL FORCEPS PREPARATORY TO PULLING THROUGH A LIGATURE. THE LEFT POLE IS SECURED BY CARRYING A LIGATURE THROUGH ON A NEEDLE. THE UPPER POLE HAS BEEN SEVERED AND THE GLAND IS DRAWN MEDIAL AND DOWNWARD. by Tom Jones.
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- 18** THYROIDECTOMY: OPERATION FOR OLD COLLOID GOITER. INSERT: THE INCISION EXTENDS UPWARD ALONG THE STERNOMASTOID MUSCLE. by Tom Jones.
-
- 19** BATHING TRUNK NEVUS by Max Brödel.
-
- 20** THE EFFECT OF OCCLUSION OF THE VARIOUS HEPATIC VESSELS ON THE LIVER by Max Brödel.
-
- 21** BIOLOGY OF THE STREPTOCOCCUS ERYSIPELAS by Max Brödel.
-
- 22** LEUKEMIA OF THE FOWL: SPONTANEOUS AND EXPERIMENTAL by Max Brödel.
-
- 23** TRANSFER DRAWING FOR ANATOMY OF THE HUMAN EAR by Max Brödel.
-
- 24** ANATOMY OF THE HUMAN EAR by Max Brödel.

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- 25** THE FINER STRUCTURES OF THE INNER EAR by P.D. Malone
(Brödel)
-
- 26** YOUNG PROBOSCIS MONKEY by Max Brödel
-
- 27** LOWER CRANIAL NERVES AND THEIR GANGLION AND
ANASTOMOSIS by Max Brödel
-
- 28** VENOUS THROMBOSIS DURING MYOCARDIAL INSUFFICIENCY
by Max Brödel
-
- 29** SURGICAL EXPOSURE OF STOMACH AND CONTRACTED
PORTION OF ESOPHAGUS by Ralph Sweet (Brödel)
-
- 30** UTERUS, LEIOMYOMA by Ralph Sweet (Brödel)
-
- 31** SHOULDER GIRDLE MUSCULATURE OF A BAT by Ralph Sweet
(Brödel)
-
- 32** HYDROCEPHALIC CHILD by Ralph Sweet (Brödel)
-
- 33** ABDOMINAL AND THORACIC VISCERA, ANTERIOR VIEW by A.
Hooker Goodwin (Jones)
-
- 34** RENAL ANOMALY (CONNECTING URETERS), by A. Hooker
Goodwin (Jones)
-
- 35** SURGICAL TREATMENT OF ESOPHAGEAL ATRESIA WITH
TRACHEO-ESOPHAGEAL FISTULA, by A. Hooker Goodwin (Jones)
-
- 36** KIDNEY NEPHRON UNITS by Gladys McHugh (Brödel)
-
- 37** PELVIC CARCINOMATOSIS WITH HYDRONEPHROSIS, RENAL
ABSCESSES, HORSESHOE KIDNEY AND THREE URETERS by
Melford Diedrick (Brödel)
-
- 38** SYNOVIAL CAVITIES OF KNEE JOINT by Gladys McHugh (Brödel)
-
- 39**/₄₆ ANATOMY OF THE EYE by Arnold Ryan Chalfant, in consultation
with Tom Jones (Jones)
-
- 47** RUPTURE OF UTERUS CAUSED BY HYDROCEPHALIC HEAD by
Elizabeth H. Brodel (Brödel)
-
- 48** CALCIFICATION OF TRICUSPID VALVE by Kathleen Mackay
Powell (Brödel)
-
- 49** RUPTURE OF THE RIGHT CORNU OF A BICORNuate UTERUS
WITH ESCAPE OF THE FETUS by August Horn (Brödel)
-
- 50** APPROACH TO RADIOHUMERAL JOINT, RADIAL COLLATERAL
LIGAMENT AND OLECRANON BURSA by Kathleen Mackay Powell
(Brödel)

- 51** SURGICAL EXPOSURE OF MITRAL VALVE by Vincent Destro (Jones)
- 52** DEFECT IN BASE OF SKULL by Jane Allen Destro (Jones)
- 53** BIRTH OF HEAD, MOUTH APPEARING OVER PERINEUM by Elizabeth H. Broedel (Brödel)
- 54** BIRTH OF HEAD, EXTERNAL ROTATION by Elizabeth H. Broedel (Brödel)
- 55** SALPINGITIS (GONORRHEAL) by Tom Jones
- 56** CARCINOMA OF THE MOUTH by Tom Jones
- 57** RENAL TUBERCULOSIS by Tom Jones
- 58** BENIGN PROSTATIC HYPERTROPY by Tom Jones
- 59** OSTEOGENIC CARCINOMA by Tom Jones
- 60** VARICOSE VEINS by Tom Jones
- 61** THE ANATOMY OF SMELL by Tom Jones
- 62** TOTAL GASTRECTOMY by Kay Bell Wahl (Brödel)
- 63** BUNNEL'S TECHNIQUE OF TENDON SUTURE by Helen Lorraine (Brödel)
- 64** ANATOMY OF KIDNEY by Orville A. Parkes (Brödel)
- 65** PARTIAL GASTRECTOMY by Kay Bell Wahl (Brödel)
- 66** SUTURING OF STENT TO INCOMPETENT MITRAL VALVE by Orville A. Parkes (Brödel)
- 67** PAPILLOMATOUS CYST OF THE OVARY by Jessie W. Phillips (Brödel)
- 68** INCISION FOR ADENOMA OF THE PANCREAS by Kay Bell Wahl (Brödel)
- 69** POSTERIOR GASTROENTEROSTOMY by Kay Bell Wahl (Brödel)
- 70** TENDONS OF WRIST AND HAND by Carl T. Linden (Jones)
- 71** MUSCLES OF THE FEMALE BACK by Tom Jones
- 72** VAGINAL REPAIR by Natt C. Jacobs (Brödel)
- 73** PATHOLOGIC KIDNEY SPECIMENS by Natt C. Jacobs (Brödel)

- 74** SURGICAL EXPOSURE OF THE CEREBELLUM by Natt C. Jacobs
(Brödel)
- 75** PRIMARY CARCINOMA OF THE VAGINA by Natt C. Jacobs
(Brödel)
- 76** HYPOSPADIA by Natt C. Jacobs (Brödel)
- 77** PRELIMINARY SKETCH OF HYPERNEPHROMA by Natt C. Jacobs
(Brödel)
- 78** ARTERIAL ANASTOMOSIS by Jean McConnell (Jones)
- 79** EXPOSURE FOR RENAL TRANSPLANTATION TO THE RIGHT
ILIAC FOSSA by Jean McConnell (Jones)
- 80** ANEURYSM OF SUBCLAVIAN ARTERY by Susan H. Wilkes
(Brödel)
- 81** AORTIC ANEURYSM AT LEVEL OF DIAPHRAGM by Orville A.
Parkes (Brödel)
- 82** LUMBAR AND PELVIC HERNIAS by Lucille C. Innes (Jones)
- 83** ANOMALOUS BLOOD VESSELS IN THE RIGHT LUNG by Emily
Freret (Brödel)
- 84** SAGITTAL SECTION THROUGH A FULL-TERM PREGANT
UTERUS BEFORE ONSET OF LABOR by Dorothy Peters (Brödel)
- 85** GAUZE PACK FOR TEMPORARY HEMOSTASIS DURING
SPLENECTOMY by Eleanor Fry (Brödel)
- 86** ASTROCYTOMA IN REGION OF THE THIRD VENTRICLE by
Dorcas Hager Padget (Brödel)
- 87** HYDROCEPHALUS. INFANT HEAD IN SECTION TUMOR.
REMOVAL OF LATERAL VENTRICLE TUMOR by Dorcas Hager
Padget (Brödel)
- 88** HYDROCEPHALUS. INFANT HEAD IN BANDAGE by Dorcas Hager
Padget (Brödel)
- 89** MYOMATOUS UTERUS PRIOR TO REMOVAL by August Horn
(Brödel)
- 90** UTERUS DISSECTED FREE FROM THE BLADDER by Hermann
Becker (Brödel)
- 91** TUBERCULOSIS PERIPHLEBITIS ACTIVE by Annette S. Burgess
(Brödel)
- 92** ACANTHOSIS NIGRICANS by Annette S. Burgess (Brödel)

93	MUTTON-FAT KERATIC DEPOSITS IN SYMPATHETIC OPHTHALMIA by Annette S. Burgess (Brödel)
94	AGRANULOCYTOSIS by Annette S. Burgess (Brödel)
95	MARFAN'S DISEASE OF THE AORTA by Leon Schlossberg (Brödel)
96	DOWNES' METHOD FOR APPENDECTOMY by Max Brödel
97	MUSCLES OF THE SHOULDER by Russell Drake (Brödel)
98	SOME MUSCLES OF THE JAW AND NECK by Russell Drake (Brödel)
99	HERNIATION OF STOMACH INTO THE POSTERIOR MEDIASTINUM ASSOCIATED WITH OBSTRUCTING DUODENAL ULCER by Russell Drake (Brödel)
100	SKELETON AND LIGAMENTS OF THE HUMAN BODY by Willard C. Shepard (Brödel)
101	MEDIAN LONGITUDINAL SECTION OF THE HEAD AND NECK by Willard C. Shepard (Brödel)
102	SKIN AND DIAPHRAGM INCISIONS FOR TRANSTHORACIC RESECTION OF CARDIAC END OF STOMACH by Gladys McHugh (Brödel)
103	TOTAL GASTRECTOMY by Helen Lorraine (Brödel)
104	TECHNIQUE OF PORTACAVAL ANASTOMOSIS by Helen Lorraine (Brödel)
105	INCISIONS FOR EXPOSURE OF THE HEART by Kay Bell Wahl (Brödel)
106/107	ANATOMY OF THE BRAIN by Arnold Ryan Chalfant (Jones)
108	PATENT DUCTUS ARTERIOSIS by Kathleen Mackay Powell (Brödel)
109	WATER DOG USED IN LABORATORY EXPERIMENTS by Susan H. Wilkes (Brödel)
110	THE HAMSTRING MUSCLES by Carl T. Linden (Jones)
111	DEEPER STRUCTURES OF POSTERIOR ASPECT OF THIGH by Carl T. Linden (Jones)
112	THE THIGH by Carl T. Linden (Jones)
113	A COMPOSITE DRAWING OF THE PLACENTA TO SHOW ITS STRUCTURE AND CIRCULATION by Ranice W. Crosby (Brödel)
114	SKIN FLAP by Natt C. Jacobs (Brödel)

- 115** THE GALLBLADDER AND COMMON BILE DUCT by Carl T. Linden (Jones)
- 116** ANATOMY OF INGUINOFEMORAL REGION by Lucille C. Innes (Jones)
- 117** TECHNIQUE FOR LIVER TRANSPLANTATION by Jean McConnell (Jones)
- 118** MUSCULOAPONEUROTIC FIBERS OF TRANSVERSE ABDOMINIS AND DIAPHRAGM by Lucille C. Innes (Jones)
- 119** EPIDERMOID CYST by Dorcas Hager Padget (Brödel)
- 120** APPENDIX DENSELY ADHERENT TO FIBROID TUMOR, UNDERGOING SARCOMATOUS DEGENERATION by August Horn (Brödel)
- 121/123** THREE DRAWINGS SHOWING DEVELOPMENT OF THE EMBRYONIC HEART by James F. Didusch (Brödel)
- 124** TETRALOGY OF FALLOT by Leon Schlossberg (Brödel)
- 125** CLOSURE OF ANO-RECTAL DEFECT by Vincent Destro (Jones)
- 126** ILEOILEAL INTUSSUSCEPTION by Russel Drake (Brödel)
- 127** ANTERIOR GASTROENTEROSTOMY by Russell Drake (Brödel)
- 128** MUSCLES OF PERINEUM by Russell Drake (Brödel)
- 129/130** CARDIAC SURGERY by Virginia Samter (Jones)
- 131** AUTOPSY SPECIMEN SHOWING SOLITARY CYST IN RIGHT KIDNEY by William P. Didusch (Brödel)
- 132** TUMOR OF TESTIS by William P. Didusch (Brödel)
- 133** HYPERTROPHY OF THE UTERINE GLANDS, MICROSCOPIC DRAWING by Hermann Becker (Brödel)
- 134** TUBERCULOSIS OF THE ENDOMETRIUM, MICROSCOPIC DRAWING by Hermann Becker (Brödel)
- 135** PROCEDURE FOR RELIEVING GAS AND INTRACOLONIC PRESSURE FOLLOWING COLON RESECTION by Eleanor Fry (Brödel)
- 136** GYNECOLOGIC OPERATION by Willard C. Shepard (Brödel)
- 137** A PIGMENTED NEVUS IN A CHILD by Willard C. Shepard (Brödel)
- 138** EXTENSIVE THROMBOPHLEBITIS IN VARICOSE VEINS by Willard C. Shepard (Brödel)

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MUSCLES OF THE KNEE by Muriel McLatchie Miller (Brödel)

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(Brödel)**143**

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150TOTAL GASTRECTOMY. A TUBE IS PASSED THROUGH
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154ANATOMY OF THE NECK, AXILLA AND THORACIC CAVITY by
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